We claim:

1. A process for adhering superabsorbent polymeric powder onto polymeric material comprising:

a) Providing a polymeric material;

b) Applying a curable liquid resin to a surface portion of said polymeric material to form a coating thereon;

c) Applying a superabsorbent polymeric powder to a surface portion of said coating; and

d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a cured resinous coating and powder stably adhered to said polymeric material.

2. The process of claim 1, wherein said curing is at least partially caused by radiation curing.

3. The process of claim 1, wherein said powder and said polymeric material comprise the same polymer.

4. The process of claim 1, wherein said powder is subjected to an electrostatic charge prior to being applied to said surface portion of said coating.

5. The process of claim 1, wherein said polymeric material is selected from the group consisting of superabsorbent polymers, non-superabsorbent polymers, and a combination thereof.

6. The process of claim 5, wherein said combination comprises a coextruded fiber having a non-superabsorbent polymeric core and a superabsorbent polymeric outer layer.

7. The process of claim 1, wherein said polymeric material is at least partially foamed.

8. The process of claim 1, wherein said powder is at least partially foamed.

9. The process of claim 7, wherein said powder is at least partially foamed.

10. The process of claim 1, wherein said powder has a particle size distribution with a large proportion of its particles less than 850 microns.

11. The process of claim 1, wherein said powder has a particle size distribution wherein a large proportion of its particles are below about 200 microns.

12. The process of claim 1, wherein said powder has a particle size distribution wherein a large proportion of its particles are below about 100 microns.

13. The process of claim 1, wherein said curable resin is a liquid selected from the group consisting of acrylates, unsaturated polyesters, epoxies, urethanes, acrylics, a monomer-containing liquid capable of forming a superabsorbent polymer upon polymerization, and mixtures thereof.

14. The process of claim 13, wherein said curable liquid resin comprises a urethane.

15. The process of claim 13, wherein said curable liquid resin comprises a monomer-containing liquid capable of forming a superabsorbent polymer upon polymerization.

16. A process for coating a superabsorbent polymer on polymeric material comprising:

a) Providing a polymeric material;

b) Applying a monomer-containing liquid resin onto a surface portion of said polymeric material to form a coating thereon; and

c) Curing said monomer-containing liquid resin to polymerize said resin into a superabsorbent polymer, thereby forming a coating on said polymeric material.

17. The process of claim 16, wherein said curing is caused by radiation.

18. The process of claim 16, which further includes the step of applying a superabsorbent polymeric powder to said liquid resin prior to curing.

19. The process of claim 18, wherein said powder is subjected to an electrostatic charge prior to being applied to said surface portion of said coating.

20. A product made by the process of claim 16.

21. A product made by the process of claim 18.

22. A process for adhering superabsorbent polymeric powder onto polymeric material comprising:

a) Providing a polymeric material;

b) Applying a solution of a curable resin in a solvent to a surface portion of said polymeric material to form a coating thereon;

c) Evaporating at least a portion of said solvent;

d) Applying a superabsorbent polymeric powder to a surface portion of said coating; and

e) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a cured resinous coating and powder stably adhered to said polymeric material.

23. The process of claim 22, wherein said solution comprises polyacrylic acid dissolved in water.

24. A product made by the process of claim 1.

25. A product for absorbing liquids comprising a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder.

26. The product of claim 25, wherein said polymeric material is selected from the group consisting of superabsorbent polymers, non-superabsorbent polymers, and a combination thereof.

27. The product of claim 26, wherein said combination comprises a coextruded fibrous material having a non-superabsorbent polymeric core and a superabsorbent polymeric outer layer.

28. The product of claim 25, wherein said polymeric material contains at least a foamed portion.

29. The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 850 microns.

30. The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 200 microns.

31. The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 100 microns.

32. The product of claim 25, wherein said powder and said polymeric material are comprised of superabsorbent polymers.

33. The product of claim 25, wherein said superabsorbent polymers are essentially the same polymer.

34. The product of claim 25, wherein said polymeric material is at least partially foamed.

35. The product of claim 32, wherein said powder is at least partially foamed.

36. The product of claim 34, wherein said foam comprises a water-swellable, water-insoluble polymer wherein the water-swellable, water-insoluble polymer is present in the absorbent foam in a weight amount between about 50 weight percent to 100 weight percent, based on the total weight of the absorbent foam, and wherein the absorbent foam exhibits a free swell value of at least about 10 grams of liquid per gram of absorbent foam and a softness value that is less than about 30 grams of force per square meter of the absorbent foam.

37. The product of claim 25, wherein said at least partially cured resin is selected from the group consisting of acrylates, unsaturated polyesters, epoxies, urethanes, acrylics, superabsorbent polymers, and mixtures thereof.

38. The product of claim 37, wherein said at least partially cured resin comprises a urethane.

39. The product of claim 37, wherein said at least partially cured resin comprises a superabsorbent polymer.

40. A liquid absorbent composite product comprising:

a) A liquid permeable first sheet;

b) A second sheet attached to said first sheet; and

c) A liquid absorbent core disposed between said first and second sheets; said core comprising a polymeric material having a coating of an at least partially cured resin having superabsorbent polymeric powder adhered to said coating.

41. The product of claim 40, wherein said core comprises the product of claim 1.

42. The product of claim 40, wherein said core comprises the product of claim 22.

43. The product of claim 42, wherein said core comprises the product of claim 25.

44. The product of claim 40, wherein said core comprises the product of claim 28.

45. The product of claim 40, wherein said core comprises the product of claim 29.

46. The product of claim 40, wherein said core comprises the product of claim 30.

47. The product of claim 40, wherein said composite product is a diaper.

48. The product of claim 40, wherein said composite product is a cleaning product.

49. The product of claim 40, wherein said composite product comprises the product of claim 39.

50. A process for making a cleaning product, comprising:

a) Providing a polymeric material;

b) Applying a curable liquid resin to a surface portion of said polymeric material to form a coating thereon;

c) Applying a superabsorbent polymeric powder to a surface portion of said coating, said powder having a particle size distribution sufficient to form a gel upon contact to aqueous solutions; and

d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a coating and powder stably adhered to said polymeric material.

51. The process of claim 50, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 200 microns.

52. The process of claim 50, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 100 microns.

53. The process of claim 50, wherein said curing is effected by radiation.

54. The process of claim 50, wherein said powder is electrostatically charged prior to applying said powder to said coating.

55. A cleaning product for absorbing aqueous liquids comprising a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder having a particle size distribution sufficient to form a gel upon contact with an aqueous solution.

56. The product of claim 55, wherein said particle size distribution of said powder with a large proportion of its particles less than about 200 microns.

57. The product of claim 55, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 100 microns.

58. A process for incorporating superabsorbent polymeric material into polymeric material comprising treating a polymeric material with a supercritical fluid containing superabsorbent polymeric material to cause said superabsorbent polymeric material to be incorporated into said polymeric material.

59. The process of claim 58, wherein said fluid comprises carbon dioxide.

60. The process of claim 58, wherein said superabsorbent polymeric material is a preformed powder that is mixed with said supercritical fluid.

61. The process of claim 58, wherein said superabsorbent polymeric material is generated *in situ* in said supercritical fluid.

62. The process of claim 61, wherein said superabsorbent polymeric material comprises a powder.

63. The process of claim 58, wherein said polymeric material comprises a fiber.

64. An absorbent product comprising a polymeric material having a superabsorbent polymeric material incorporated therein.

65. The product of claim 64, wherein said polymeric material comprises a fiber.

66. The product of claim 64, wherein said superabsorbent polymeric material comprises a particle.

67. The product of claim 64, wherein said superabsorbent polymeric material comprises a film.

68. A diaper containing the product of claim 64.

69. A process for adhering superabsorbent polymeric powder onto polymeric material comprising:

a) Providing a polymeric material;

b) Applying a superabsorbent polymeric powder to a surface portion of said polymeric material;

c) Coating said powder coated polymeric material with a resinous material; and

d) Causing said superabsorbent polymeric powder to be contained or adhered to said polymeric material by at least partially curing said resinous material.

70. The process of claim 69, wherein said polymeric material is liquid permeable.

71. The process of claim 69, wherein said resinous material comprises a liquid.

72. The process of claim 69, wherein said resinous material comprises a powder.

73. An absorbent product comprising a polymeric material having a coating comprising a superabsorbent polymeric powder and an at least partially cured resinous material.

74. A diaper comprising the product of claim 73.

75. A process for adhering superabsorbent polymeric powder onto polymeric material comprising:

a) Providing a polymeric material;

b) Applying a superabsorbent polymeric powder which is coated with liquid resinous material to a surface of said polymeric material; and

c) Causing said applied powder to adhere to said polymeric material by at least partially curing said liquid resinous material.

76. A product made by the process of claim 75.

77. A process for adhering a superabsorbent polymeric powder onto a polymeric material comprising:

a) Providing a polymeric material;

b) Applying a mixture comprising a superabsorbent polymeric powder and a resinous coating powder to a surface of said polymeric material; and

c) Causing said applied powder mixture to adhere to said polymeric material by at least partially curing said powder, thereby obtaining a coating comprising a cured coating powder containing said superabsorbent polymeric powder.

78. The process of claim 77, further comprising electrostatically charging said powder mixture prior to applying said mixture to said polymeric material.

79. The process of claim 77, wherein said curing is effected by radiation.

80. The product made by claim 77.